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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,949	10/21/2004	Michael Habele	3129	8788
7590 06/10/2005				
Striker Striker & Stenby 103 East Neck Road Huntington, NY 11743				
			EXAMINER PRESTON, ERIK D	
			ART UNIT	PAPER NUMBER
			2834	
DATE MAILED: 06/10/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/511,949	HABELE, MICHAEL	
	Examiner	Art Unit	
	Erik D. Preston	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/21/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 04/01/2003. It is noted, however, that applicant has not filed a certified copy of the German application as required by 35 U.S.C. 119(b).

Claim Objections

Claim 1 is objected to because of the following informalities: In the next to last line of the claim the phrase "...the trailing end..." should be changed to "...a trailing end ...". Appropriate correction is required.

Claim 2 & 3 are objected to because of the following informalities: In the last and next to last lines of the claims the phrase "...the leading end..." should be changed to "...a leading end ...". Appropriate correction is required.

Claim 4 is objected to because of the following informalities: In the 4th line of the claim the phrase "...the yoke part (16, 16')..." should be changed to "...the yoke part (14, 14')..." Appropriate correction is required.

Claim 6 is objected to because of the following informalities: In the 4th line of the claim the phrase "...and/or the jr..." should be changed to "...and/or another yoke part...", and in the last line the phrase "...the pivot axis." should be changed to "...a pivot axis." Appropriate correction is required.

Claim 8 is objected to because of the following informalities: In the next to last line of the claim the phrase "...the radial direction..." should be changed to "...a radial direction..." Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5,7 & 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Habele et al. (WO 00/39912).

With respect to claim 1, Habele teaches a braking device for an electric motor (Fig. 1, #10) having a rotor (Fig. 1, #12) and a stator (Fig. 1, #11), having a brake element (Fig. 1, #23) which is movable between a braking position and an operating position, wherein a brake shoe (Fig. 1, #31) which brakes the rotor in the braking position is mounted on the brake element on a trailing end relative to the direction of rotation of the rotor, but doesn't teach the electric motor being a direct current series wound motor. However, direct current series wound motors were well known in that art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the motor of Habele in view of a series wound DC motor because they have a high starting torque.

With respect to claim 2, Habele teaches the braking device of claim 1, characterized in that the brake element has a brake arm (Fig. 1, #29) on the trailing end that carries the brake shoe, and has a disengagement arm (Fig. 1, #30) on a leading end.

With respect to claim 3, Habele teaches the braking device of claim 1, characterized in that the stator has a yoke part (Fig. 1, #13) of a magnetically conductive material on a leading end and has a stator winding (Fig. 1, #14).

With respect to claim 4, Habele teaches the braking device of claim 3, characterized in that the brake element is magnetically conductive, and together with the yoke part on the leading end, encloses a motor air gap (Fig. 1, #32) with the rotor that in the braking position, on the leading end has an essentially constant gap width.

With respect to claim 5, Habele teaches the braking device of claim 3, characterized in that between the yoke part and the leading end of the disengagement arm of the brake element there is an air gap, and in the yoke part on the leading end, between the stator winding and the air gap from the disengagement arm of the brake element there is a constriction which forms a magnetic resistor in the yoke part on the leading end (as seen in Fig. 1).

With respect to claim 7, Habele teaches the braking device of claim 1, characterized by a bearing pin (Fig. 1, #27) for supporting the brake element, the bearing pin being supported in a fixed bearing point by a positive-engagement that is secure against relative rotation.

With respect to claim 9, Habele teaches the braking device of claim 1, characterized in that the brake element is prestressed in the direction of the braking position by a compression spring (Fig. 1, #34), but it does not teach that a guide spur for the compression spring that protrudes into the compression spring is disposed on the brake element. However, guide spurs were well known in the art at the time of the

invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the brake element of Habele in view of a guide spur because they can be used to hold springs firmly in a desired location.

With respect to claim 10, Habele teaches an electric motor having a breaking device of claim 1.

With respect to claim 11, Habele teaches a machine tool having an electric motor of claim 10.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Habele et al. (WO 00/39912) in view of Nitta et al. (US 6265804). Habele teaches the braking device of claim 1 characterized in that the yoke is disposed axially relative to a pivot axis (Fig. 1, #28), but doesn't teach the brake element, the yoke part on the leading end, or another yoke part on the trailing end having a plurality of lamination packets, which comprise a plurality of electrical laminations. However, Nitta teaches a yoke part (Fig. 1) having a plurality of lamination packets, which comprise a plurality of electrical laminations that are disposed axially. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the yoke part of Habele in view of the yoke part as taught by Nitta because it restrains the unbalancing in the magnetic attractive forces acting in the core while also reducing vibration, noise, and iron losses (Col. 1, Lines 41-49).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Habele et al. (WO 00/39912) in view of Guenther et al. (US 6326710). Habele teaches the breaking device of claim 1, but doesn't teach that the breaking element, in the breaking

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position, rests on the trailing end of a fixed stop face, and that the stop face has a predetermined angle of inclination relative to a radial direction, in order to attain a self-clamping of the brake element. However, Guenther teaches an integral braking element (Fig. 2, #22) resting on the trailing end of a fixed (to a rotor shaft) stop face (Fig. 2, #30), and that the stop face has a predetermined angle of inclination relative to a radial direction, in order to attain a self-clamping of the brake element. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the brake element of Habele in view of the brake element as taught by Guenther because it reduces run-down times in electrical tools, without requiring any additional installation space (Guenther, Col. 1, Lines 21-53).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US 4022301, US 4059779, US 2003/0077476 & WO 02/33808 (which has a common assignee). All of the above are electromagnetically actuated motor braking devices, and laminated yoke packets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is (571)272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



05/31/2005



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